

MICHIGAN FARMER AND STATE JOURNAL

GIBBONS BROTHERS. Publisher

DETROIT, SATURDAY, OCTOBER 12, 1889--WITH HOUSEHOLD SUPPLEMENT.

PRICE, \$1 PER YEAR

NUMBER 41

VOLUME XX

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THE GREAT WEST

**Observations of a Michigan Farmer—He
is not Impressed with its Attractions—
Interesting Observations on the Country**

OMAHA, Sept. 25, 188

To the Editor of the Michigan Farmer.

weeks might be acceptable to you and the readers of the FARMER, I will give you some observations I have made, and some of the impressions received in traveling a distance of seven or eight thousand miles over and through fertile prairies and well cultivated fields, arid deserts and sandy

plains hundreds of miles in width, through mountain gorges and over the tops of the Rockies, the Sierra Nevada, along the Pacific coast and back along the Columbia River in Oregon, as well as over hundreds of miles of lava beds in Idaho and mountain cattle ranges in Wyoming, and through the more fertile lands of Nebraska in reaching its eastern boundary on the Missouri River. In general terms, one who has not traveled to the Pacific coast, no matter how much he or she may have read or studied, can have no comprehensive idea of the vast distance between Michigan and the ocean. Nor can one who has not been familiar with mountain formation from actual observation form an adequate conception of the vast magnitude of these hills piled one upon another up above the clouds, and stretching in length thousands of miles and in width hundreds of miles.

Pacific follows its winding course for hundreds of miles, and affords some chance to form an opinion. I once heard it relate that h---ll would be a desirable place in which to live if it had plenty of water and good society. It would need more than that to induce me to locate in Nevada. I write from an agricultural standpoint, not from a mining one. On reaching California and getting into the vicinity of Sacramento the panorama changes. Fertile fields, splendid orchards, large vineyards greet the eye on every hand. Farm buildings in a large degree are missing. The soil is very fertile where it has not been cropped too long and often. This cropping must necessarily follow, for with rain during only a small portion of the year, no sod can be formed of clover or timothy or blue grass. Where irrigation is practicable and practiced immense quantities of alfalfa clover are raised as many as four cuttings in one season, and two or more tons to the acre. The hay, as they call it in that State, is made by sowing wheat and oats together and cutting while the berry of the wheat is soft and not matured. It is then dried sufficiently and baled and carted to market or to the place of use. The cattle and horses are then turned into the fields and do well on the stubble until the rains now soon to commence make everything grow rapidly. Cattle and horses or sheep do not have to be sheltered and of course can be raised more cheaply than in Michigan. This fine climate, rich soil and easy means of living beget idleness and shiftlessness, and as a result no especial endeavor is made by the average farmer to be what he might be in other directions. One thing is

back to the celestial empire for a last interment. They build no buildings, they make no improvements, they build up nothing they come in contact with American labor, which will not from choice work in harmony with them, and from this fact they have the matter of wages in cities where they are numerous, very much under their own control. If what I have stated be not true, the question I want answered is, why is it that in States where there are no perceptible numbers of these people, such as Michigan, Ohio, Indiana, etc., wages are lower and labor more plenty? I am well aware that from the location and the rapid improvements in the west labor would naturally be higher, but that does not make anything like the difference that exists. From what I have written it will be seen that I am not very much in favor of Chinese immigration to this country, but would favor the idea of their voluntarily leaving for China, where I think they properly belong.

benefit of those who thus deceive. I am not unmindful of many advantages to be found in the far west, but have stated some facts which have come under my observation during this trip, and to warn those who may read these lines that "all is not gold that glitters;" and if they think of trying a home there they should go with their eyes open, rather than depend upon the misstatements and lies that are printed for pay.

WM. BALL.

THE PORT HURON FAIR.

The Port Huron Fair opened on Tuesday of last week under rather unfavorable auspices, so far as the weather was concerned. But there was an improvement in this respect the following days.

The fair itself was a decided success, both as an exhibition and in point of attendance. The management reported an average attendance of over 5,000 per day. The show of live stock was remarkably good, both in the number of breeds represented and the quality of the stock. In the class of draft horses R. G. Hart, of Lapeer, carried off about all the honors in Percherons, and in grades D. H. Bryce, Port Huron, and Jas. A. Prout, Port Gratiot. L. & J. A. Morrill, of Yale, were the only exhibitors of Clydes, but in grades there were a large number of entries, by Wm. Baker, and Henry Johnston, Lexington, and Henry Eispass, St. Clair, D. H. Bryce, Port Huron, John Jackson, Ontario, and the Messrs. Morrill. There was a good show of horses of all work, heavy draft teams, matched teams of carriage horses, generally grades with full blood sires. In the class of trotters and roadsters R. G.

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MILK AND BUTTER YIELDS.

**Official Report of the Test Conducted at
the Detroit Exposition.**

The following is a record of the cows which competed in the milk and butter tests at the Detroit Exposition:

Cow Nicole, Holstein, owned by Wm. C. Hunson, Vienna, Ohio, was awarded first premium. Milk yield Sept. 25th, 65 lbs. 8 z.			
BUTTER.			
All the animals were owned by F. C. tevens, Attica, New York.			
Mechtchilde, No. 6729 H. H. B.			
Milk, Sept. 24.....	58 lbs.	14 oz.	
butter, Sept. 21.....	2 lbs.	1 oz.	
Tireannia, No. 6716 H. H. B.			
Milk, Sept. 21.....	56 lbs.	10 oz.	
butter, Sept. 21.....	1 lb.	13½ oz.	
Parthenia, No. 9597 H. H. B.			
Milk, Sept. 21.....	50 lbs.	14 oz.	
butter, Sept. 21.....	2 lbs.	1 oz.	
Alberta Abberkerk, No. 9579 H. H. B.			
Milk, Sept. 21.....	56 lbs.	14 oz.	

utter, Sept. 23. 2 lbs. $3\frac{1}{4}$ oz.
The above is a correct statement of the
milk and butter test as conducted by me.
FARMINGTON, Mich. MARK R. SEELEY.
Michigan Crop Report, October 1, 1889.
The probable yield of wheat in Michigan
this year is 23,127,050 bushels, *machine*
measure. This estimate is based on the
acres in wheat in May as shown by the farm
statistics returned to this office last spring,
the yield from 163,397 acres threshed as

The Dairy

CONDUCTED BY T. D. CURTIS.

Use and Care

A cow that gives 12,000 pounds of year which will make 1,200 pounds cheese of average quality, may be called a profitable cow. So also may a cow that gives 6,000 pounds of milk a year which will make 600 pounds of butter. Suppose eight pounds of it will make a pound of cheese. Then the 6,000 pounds of milk would make 750 pounds of cheese. How much more would it sell for than the 600 pounds? Not enough to make up for the difference in weight. But her 400 pounds of butter, at 30 cents a pound, would bring as much as the 1,200 pounds of cheese at 20 cents a pound. Now, let us reverse the order and make the 12,000 pounds of milk into butter. We have double the amount of handle and double the amount of skimmed milk to feed, and we will suppose that it takes double the amount, 30 pounds, of cheese to make a pound of butter. This will give us just 400 pounds—the same amount made from the 6,000 pounds. If of equal quality, it ought to sell for as much. The question would then be reduced to the relative cost of keep. That of the larger animal would probably be the most, and cheese is more exhaustive than butter to the animal. But it must be conceded the larger animal is more of a "general purpose" cow, since her milk is equally profitable when converted into either butter or cheese, while the other is not. The disposal of the milk and the cost of the keep are two questions to be constantly borne in mind.

Prof. Cook on Ripening Cream.

At this stage of the discussion, any
on the question of ripening cream and
aring it for the churn is acceptable.
eed scientific experiments to decide it.
he absence of these, we suppose the e
ons of scientific men are next in or
prof. W. W. Cook, of the Vermont Agr
icultural College, is reported as expressing
opinion that, all other things being the sa
the most butter will be obtained from cream

churning it when there is the most churning! This, of course, assumes that churning does not cut or destroy any of the fat globules. We have been taught that it does. Artificial churning—as, we suppose, with vinegar and other acids—gives quicker results! But this is not all there is of the ripening process. When the flavor is obtained, the Professor says, "There is no exposure to the air, and the purer the cream, the better the flavor." This is Prof. Arnould's philosophy of the oxidation of cream, which again, and in direct opposition to the "stirring" idea, with no exposure and no stirring! With pure air, Prof. Cook says, sheepskins afford the best conditions for developing flavor. They also afford the greatest facilities for absorbing odors and taints. If the air is impure. There have been no opinions about the necessity for pure air, but how are taints to be avoided in a pure atmosphere by deep setting, if there is sufficient exposure to develop the flavor? The fact is, we must have a clean, sweet atmosphere.

What the Cheese Maker Wants.

The aim of the cheese maker should be to get out of 100 pounds of average milk, 3½ pounds of fat, 3¼ pounds of casein, a small amount of mineral matter, a fraction of sugar to be transformed into lactic acid, and to keep the curd in a granular condition; otherwise it will be waxy and stringy—about 3½ pounds of water. The rest of the sugar, and nearly all of the albumen, will remain. If the rennet does not coagulate, will run off with the whey. This albumen is about all there is left in the whey that is of any value. If feed. The sugar is good for nothing unless the whey is fed while it is sweet.

The cheese maker saves a little over seven pounds of the solids, and retains about 3½ pounds of water, so that when cured and a portion of the water has dried out he has 10 pounds of cheese, composed of one-third water, one-third fat, and one-third casein and mineral matter.

batter. Rich milk may do better, and poor milk worse. If the cheese sells for seven cents a pound, it means 70 cents gross for 100 pounds of milk. Out of this the dairymen must pay the cost of making and marketing and make up any loss.

As cows are still living mainly on pasture, not much attention is paid to the cost of production. But soon the animals will give out, and then the feed question will come close home to the dairyman. He may think it all contained in the greater or less cost of feed, ignoring entirely the cost of production. If any of our readers along in this category, we want to call their attention to some figures furnished by the New Hampshire Agricultural Experiment Station, which illustrate the difference in cost of production with different rations of different cows. It was found that the cow giving a quart of milk from the best cow, while the best of five different rations, gave the most milk while with the poorest ration.

Oct. 12, 1889.

The Horse.

For the Michigan Farmer.
INFLUENCE OF SHOWING GOOD HORSES.

Fairs are a great educator in every direction. In no other way do they exert a more wholesome influence than in inspiring farmers to breeding a better class of horses. No kind of live stock can be so well shown up at fairs as horses, no matter to which class they belong. The man who has the true pride of a horseman will feel just as proud behind a handsome draft horse, attached to a wagon or cart, as the admirer of the nimble trotter can in his light sulky behind one of his flyers. In the grand cavalcade at the Plymouth fair this year there was a fine display of horses, from the magnificent Shire, Clydesdale and Percheron, down to smaller sized roadsters and ponies. Coach horses were represented by Cleveland Bays and French Coach. The different breeds of trotting horses were well represented by a nice display of grades of the different breeds.

How many silent resolves to breed better stock are made while viewing these grand displays of horse flesh by the lookers-on nobody knows. The influence derived from such shows is far-reaching, and doubtless the advancement made in improving our horse stock is as much due to them as anything else. Importers and breeders everywhere recognize this fact. Shows are made where the premiums offered can't begin to cover cost. Yet after year those handling pure-bred stock make these displays, satisfied that it pays them well to do so. The mere matter of advertising their own stock is one motive for so doing; but in taking a broader view of the matter it must be conceded that this should not be the main object at all. Those who have made a circuit of fairs this fall, or made any shows whatever, can rest assured that they have done the cause of raising the standard in horse breeding much good, even if they have not received the premiums which they expected. The proper way to look at these matters is to do that which is for the general good. Now if our fair associations will arrange their premium lists so as to give the different breeds a fair show in their respective classes, even if the premiums are not so large, we will promise them a better show in the future.

C. B. T.

NOTES UPON THE PARIS EXHIBITION.

The Show of Horses—Comments upon their Breeding and Characteristics.

From our Paris Correspondent.

Paris, September 28.

Before examining the special features of the very excellent International Horse Show, a few glances on the 1878 exhibition, may be instructive. The latter show was, like the recent one, held in September 1st to 10th. It is a month generally cool, and when the stallions have finished their season, and the mares are able to be separated from their foals. The time is also more suitable for the transport of the animals, and for their stabling.

In 1878, a physician and three assistants were charged to medically look after the employees and visitors. The animals were cared for by a first class veterinary surgeon and three aids. There was also a staff of polyglot interpreters, and a special service for the feeding and watering of the animals. The grooming was performed by 36 ostlers drafted from the governmental *haras*, or breeding studs, and 100 cavalry soldiers cleaned up the stalls and building every morning at break of day.

In 1878, there was no classification of the horses by nationality. There were 113 juries, of whom 62 were elected by France and 51 by the exhibitors. The total number of entries was 1,058, of which 738, by France; 91 by Belgium; 67 by England, 36 Hungary, 27 Russia, and 20 by Austria proper. The total 1,058 exhibits, were divided into 38 categories; the juries awarded 244 gold medals, value \$1,882 fr; in addition to money prizes or bounties amounting to 116,000 fr.

No pure Arab horses, that is, those peculiar to the plains stretching from the Red Sea to the Euphrates, were represented. Indeed it may be said that private industry does not take cognizance of that breed. The French haras timidly try to keep it up. However, the nearest approach to the pure Arab, was a horse from the royal breeding stud of Hungary. Strange, it was then the opinion that pure blood English horses degenerated both in England and France, and this was attributed to the intense passion for commercial racing. At present, when this passion is just at the zenith of its intensity, the opinion is quite the other way. Hack racing does not improve horses.

The judges held that the Anglo-Arab is the finest saddle horse in the world. They are the stallions of this breed which keep up the supply of horses for the French cavalry. The Normandy was in 1878, run close by the Vendee race; the horses from Flanders and Hainault excited no little astonishment from their huge size; but the Clydes were preferred, only they had too much flesh. It was Queen Victoria bought the pick stallions in the race of Percherons for the Hampton court stud. In 1878, France had no trotters.

Let us examine and measure the changes accomplished during the past eleven years. Since half a century, France has labored to improve her native breeds of horses by a liberal introduction and mixing of pure Arab and English blood. This has given birth to many "derivative," or half-blood races. But while thus developing and ameliorating many indigent races, no breed has been preserved pure, and some have died out—the type Limousin for example. Indeed there are hints of decided views who go so far as to maintain that there are now no Percheron, Ardennes, or Boulogne horses; that the old Normand carriage horse itself, with powerful chest, round neck, and square forehead, no longer exists, due to over-refinement by English blood.

Putting aside these points, more or less academic, the 1889 exhibition demonstrated a high degree of perfection in saddle and carriage horses—their put-out of the environment of modern luxury, refined civilization, and mild, studied care. For it is rare that a horse of a good breed, when treated with watchful attention and kindness, will prove related to such treatment. The racing breeds

far from justifying the dark forebodings of the 1878 public, have scored veritable victories. Studs have multiplied, and the quality has kept pace with the augmentation of numbers. Thanks to English trainers, French stables are now peculiarly rich in beautiful racing animals. There can be no doubt that the race-course exercises have the happiest influences in ameliorating horses, provided the dams possess good native points, and the sires a privileged stock of good blood. The exhibits from Normandy, Western Brittany, the Cotes du Nord, Vendee, etc., illustrate and attest these truths. Horse breeding is remunerative, to a sound knowledge of the subject there be added time, patience, and capital. A good horse can ever count upon finding a good market, and a remunerative price.

Trotting horses only existed in name at the 1878 Exhibition. In 1889, a few sections had been created for breeds possessing special trotting features; rapid steppers, in a word. It is not the American trotter as yet, but an improving up to the ideal. The Americans have created in the environs of Paris, a race course exclusively for trot competitors, whereto prouss and the aptitudes of the trotter can be demonstrated. The States carry off the best Percherons from France; they seem decided in return, to floor France with trotting horses, as they do with corn. Perhaps the salient feature of the 1889 show was the display of draught horses. The committee divided these into the races Percheron, Brittany, Boulogne (Surmer), Ardennes, and their derivatives." The latter classification is prudent.

There were 84 Percheron breeders who contributed entries. How many of the animals were pure? Nothing is more fallacious than to conclude that a horse foaled in Perche, is a Percheron. Perhaps the Percheron farmers are more ignorant than breeders. The ancient race of Percheron has been modernized into dodo rarity. Percheron foals are now sought for in France, in regions where that race has never penetrated. Perhaps the same remarks will apply to the race Ardennais. How many pure specimens of it exist? The fact is, the Flemish, or rather the Hainault blood—an excellent blood besides—has filtrated into the vigorous veins of the Percheron, imparting to the race a heanness of strength exacted by contemporary wants. The races of Brittany and the Cotes du Nord are not pure. Their height, their powerful and well-balanced members denote Norman and Ardennais blood. However, the metamorphosis is anything but regrettable.

But the three typical draft races were the English, the Belgian or Flemish, and the Boulonnais. The light variety of the latter has become unnecessary since railways have superseded mail coaches, post-chaises, and fish market vans. The Boulonnais seem destined to supply the United States with "Percherons," and Belgium is actively furnishing France with blood for her Boulonnais.

Belgium has every reason to be proud of the triumphs she has scored for her Flemish and Ardennais—the latter common also to France—horses. She has really swept up gold and silver medals and diplomas. Some splendid Clydesdales were shown, and that it would be only bringing coils to Newcastle to describe suffice to say, they made a most favorable impression both on judges and visitors. Some of the animals had a shoulder measurement of 69 inches: were of rare perfection; patient; full of calm courage; of working muscle—not ornamented flesh; magazines of strength, and of ceaseless power.

Horse Gossip.

HAPPY BEE, by Happy Russell, a two-year-old filly, trotted a mile on Friday of last week in 2:39½.

MESSINGER, of Hilldale County, has sold his stallion De Soto to E. G. Fay & Son, of Bryan, O., for \$1,500.

HENDRYX won the \$1,000 purse in the 2½ class at Terre Haute, Ind., on Tuesday last, with Almont second. Time, 2:20½, 2:19½.

In the free-for-all pacing race at Sacramento, Cal., on September 19th, the starters were Adonis, Gold Leaf and Yolo Maid. The latter won in straight heats: time, 2:12½, 2:14½ and 2:15½.

THE letter from our Paris correspondent in this issue, giving a report of the exhibition at the Paris Exposition, will be found very interesting reading. It furnishes strong corroboration of what the Harper has repeatedly claimed regarding the breeding of French horses.

The stallion Palo Alto, by Electioneer, dam the thoroughbred mare Winnie, has reduced his record to 2:13½, trotted in the third heat of a race in California. Of course Palo Alto does not know that he has no right to do any such a thing, for the *Breeder's Gazette* and Mr. Wallace have decided that a horse bred as he is cannot be a trotter.

In the futurity stakes for three-year-olds at Cleveland on Tuesday last, the winner was Margaret S., by Director, while Palo Alto Belle, by Electioneer, was second, and Fortune third. Time, 2:23½, 2:22½, 2:24. Margaret S. has trotted below 2:20 in previous races. The first horse got a cup valued at \$1,000, and \$3,738 in cash; second, \$1,065 in cash, and the third \$534.

FOXHALL the great American thoroughbred, who won the Grand Prize of Paris, the Cesarewitch, Cambridgeshire and Ascot Gold Cup in one season, and is now owned in England, will be sold during the Newmarket meeting this month. He has not come up to expectations in the stud, it seems. Were he brought back to this country he would probably do much better.

A RECENT addition to the trotting sires of Michigan is the stallion Fellowship, now owned by Charles E. Bennett, of Jackson. Fellowship was sired by Franklyn, he by Gould's Clay, a son of Neave's Cassius M. Clay Jr. His dam was Maid of Franklin, by Mambrino Piot 29; 24; 23; Nine Neave, by Neave's C. M. Clay Jr. 20. Mr. Bennett is said to have paid \$2,500 for Fellowship.

The value of brood mares is increasing rapidly among breeders of trotters. The Billy Palo Alto Belle, 2:28½, has been rented out for one year to a stallion, for which her owner receives \$5,000. She is to be bred to Alcantara, 2:23. In blood Palo Alto Belle is a full sister to the noted Bell Boy. And the same Alma Mater, dam of Alcantara, 2:28 Alysone, 2:27; Alicia, 2:29; Amater, 2:26, and Arbitre, 2:30, cost Sam Gamble, her pres-

ent owner, \$15,000 when 17 years old. A spec mare is a fortune to her owner.

WILL the managers of county and district fairs allow us to make a suggestion? It is that in arranging premiums on grade classes none be offered on stallions. The use of grade stallions directly conflicts with the very objects for which such premiums are offered—the improvement of the general class of horses raised on the farm. Premiums on grades other than stallions will help this improvement by showing farmers the result of using pure-bred sires. With such sires, as plenty are there in this State, the use of grades should be discouraged in every way possible.

SAYS an Eastern paper: "The three-year-old stallion Alerton, stable companion to the wonderful Axel, 2:14, went lame in his last race, and was drawn after trotting two heats. He got a record of 2:18½ in the fourth heat of a race not long since. It was the last straw that broke the camel's back." There is a limit to the endurance of every colt, and it is always safest to stop before reaching that point." The Michigan horses Gene Smith and Alecyron and Jumentum are each examples of failure from overwork. Last season June, a very game young horse, was completely worked out, and this year was a disappointment. The close of the present season shows Gene Smith and Alecyron to be in about the same condition, but as they are older they may not show it so much next season.

The death of Don Cossack, resulting from a cold caught at the Detroit Exposition, was a severe loss to the Caton Stock Farm. He was a great show horse, and sired stylish colts with some speed, which they invariably got early. They were not as speedy as those from many other sires, and we doubt if a very fast one will appear among his descendants. He was finely bred for speed, his sire being Belmont, a son of Hambletonian, and his dam by Alexander's Abdallah, a cross that has produced game and fast trotters. Don Cossack was an ideal type of a carriage horse, over 16 hands high, rich bay in color, very stout and handsomely proportioned. We would like to see a hundred just such studs in Michigan. Matched carriage teams of the best type could be bred from them with as much certainty as from any breed of horses known.

Machine for Husking Corn.

A machine which can be made to husk corn rapidly and well will fit at place in agricultural machinery known as "long felt want." A Southern Ohio man mentions in the *Country Gentleman*, a new invention which promises to fill the void: "The machine for husking corn, and at the same time chaffing the fodder, was in operation, and will, I think, do all that is claimed for it, namely, husk perfectly clean every ear, and deliver it in the wagon, while it cuts the fodder short and elevates it to the place where it is to be stored. The machine is very simple, and probably will not be costly when enough can be sold to keep a factory busy making them, but like any new thing it must work its way into public favor. I did not examine it critically, but it looks as though it could be built as cheaply as a binder. The corn, as taken from the shock, is fed first between rollers, which crush the stalk but will not let the ear pass through. The ears drop on to two cylinders, which revolve towards each other, and are set at an angle so as to pass the ears along to an elevator which deposits them in a wagon. I think, with dry corn, that nearly every ear will be husked by the rollers, but if any husks remain, the cylinders are provided with spurs which take them all off. At the State fair they were husking corn at the roasting east stage with it, and it did not leave a husk on it."

Another machine that I was greatly interested in was one for cutting and shocking corn. It was intended to be drawn by one horse walking between two rows, both of which it cuts. Two men ride, and the angling knife approaches the hill of corn, they catch hold of it, and when it is cut, set it against a lever in the middle of the platform. When the shock is large enough, the horse is stopped and two ropes attached to the rear of the lever are brought round the shock, and being provided with iron hooks, are in an instant fastened together. One of the men now turns a crank at the front of the lever, which draws the top of the shock together, and the other man ties it, and then the lever lifts the shock up and sets it down square on the ground at the rear of the truck. I did not see this machine in the field, and am not sure that it would be found practical; but it is a pioneer, and the day I believe is not far distant when corn will be cut, and perhaps shocked by machinery. There are many inventors now at work on this problem, and undoubtedly it will soon be solved."

CORN THE BEST OF FEED.

A CORRESPONDENT of the *Country Gentleman* says as early broilers the Brown Leghorns cannot be mentioned in the same day with the Plymouth Rocks, two of the former making little more show on the table than one of the latter. No matter how long and gawky they look they are fat, tender and juicy.

M. BOYER says, in the *Germantown Telegraph*: "We have found the use of vinegar most valuable in the cure of soft crop in fowls. It is also recommended as one of the best tonics for asthmatics or rachitis, diluted with water. In the latter case a teaspoonful every morning is the dose. In soft crop, we put just enough vinegar in the drinking water to acidulate it."

Another machine that I was greatly interested in was one for cutting and shocking corn. It was intended to be drawn by one horse walking between two rows, both of which it cuts. Two men ride, and the angling knife approaches the hill of corn, they catch hold of it, and when it is cut, set it against a lever in the middle of the platform. When the shock is large enough, the horse is stopped and two ropes attached to the rear of the lever are brought round the shock, and being provided with iron hooks, are in an instant fastened together. One of the men now turns a crank at the front of the lever, which draws the top of the shock together, and the other man ties it, and then the lever lifts the shock up and sets it down square on the ground at the rear of the truck. I did not see this machine in the field, and am not sure that it would be found practical; but it is a pioneer, and the day I believe is not far distant when corn will be cut, and perhaps shocked by machinery. There are many inventors now at work on this problem, and undoubtedly it will soon be solved."

CORN THE BEST OF FEED.

A CORRESPONDENT of the *American Poultry Fard* writes: I do not propose to go into a scientific analysis of the various foods to show which contains the most fat, which the most starch, and all that, because I recognize one fact, and that is that something besides the bare constituents of the food which we feed to our fowls must be considered.

When we feed corn to our fowls we must remember that corn and water are not absolutely all that the fowl take into their crops; they are supposed to eat some green food, some meat food, some lime, and various other things which they pick up here and there, and which we know nothing about. Analysis tells us the component parts of corn and water, but does not tell us what influences one fact, and that is that something besides the bare constituents of the food which we feed to our fowls must be considered. When we feed corn to our fowls we must remember that corn and water are not absolutely all that the fowl take into their crops; they are supposed to eat some green food, some meat food, some lime, and various other things which they pick up here and there, and which we know nothing about.

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Horticultural.**WASHTENAW POMOLOGY.**

The October meeting of the Washtenaw Pomological Society met at the usual time and place, with Mr. J. D. Baldwin in the chair. The following members reported a very satisfactory harvest, and most satisfactory fruit prices for peaches: Wm. McCrae, J. D. Baldwin, J. J. Marshall. Mr. Ganshorn reported an unsatisfactory grape crop and still more unsatisfactory prices. The advanced price on apples gave general satisfaction. New York and Ohio had hardly any apples and eastern buyers are eager to buy Michigan apples. Mr. Clough reported the prices of berries very satisfactory. All were satisfied that the committee on transportation did a most efficient work. It was resolved that those who shipped with the Ann Arbor fruit car should settle at once their dues per bushel at the shoe store of Mr. L. Gruner.

Mr. Wm. McCrae exhibited the largest Baldwin apples the Society ever had on their tables. Mr. Baur exhibited the following peaches: Superfine, Basswood, Anjou, Sheldon, Bosc, Mount Vernon, Lawrence, Osondaga, Kieffer, Winter Nella, D'Arenberg. The committee on fruit preserving reported that the Messrs. Almendres & Schneider had not fulfilled their contract in so far that canning of fruit was not yet carried on in their factory. Some complaints were made on account of very small prices paid for apples by the fruit factory. It was stated that another fruit dryer had been started in the former Vitz brewery.

The members present bore testimony to the great loss the Society sustained by the sudden death of Prof. B. E. Nichols, and a resolution was passed that the secretaries of the Society be instructed to prepare resolutions to that effect and to publish said resolutions in the city papers and transmit a copy to Mrs. Nichols.

The following resolutions are respectfully submitted:

Resolved, That the County Pomological Society lost in the late Professor Benjamin E. Nichols one of its oldest, best and most efficient members. Engaged in pomological pursuits over a quarter of a century, the Professor died on the fourth day of the Society's being present when Hon. J. Austin Scott called the first meeting for the establishment of a county pomological society. We cherish and honor his memory for the nobility of his character, for his cheerful and upright ways among us, and for his progressive work in horticulture.

Resolved, That we extend our innermost sympathy and condolence to Mrs. Nichols and her two daughters, believing truly that the blessings so richly dispensed in all the offices of doing good by the dear husband and father will permanently remain with them.

THE COMMITTEE.

Banished the Peach Borer.

A New Jersey peach grower says he successfully repels the peach borer by washing the base of the tree trunks with the following: "For 3,000 trees, use 100 lbs. caustic potash, one barrel lime, one gallon crude carbolic acid, two lbs. white arsenic." London paper is better, as cheap, and far less likely to lead to serious accidents—"London paper is better, as cheap, and far less likely to lead to serious accidents"—and water enough to make 300 gallons of wash." I tried and recommended a somewhat similar mixture nearly twenty years ago. But why the advice to apply with brush to the trunk just above the surface of the earth in May or June? Here in Michigan the moths come forth in July and August, and so lay their eggs in these months.

As this treatment is to prevent egg-laying and to kill the newly hatched caterpillars as they begin to tunnel the trees, to apply it earlier than July 10 in Michigan would be a mistake. New Jersey may be a little earlier than Michigan, but the difference cannot be more than a few days. With this amendment I can vouch for the value of the above. On the whole, however, there is no safer, cheaper or more satisfactory method to fight this pest than to dig it out in September and May of each year. This method has nearly banished the pest in the far-famed peach belt of Michigan.—Prof. A. J. Cook, in N. Y. Tribune.

Burbank's Horticultural Experiments.

The originator of the Burbank's Seedling potato is now in Sonoma County, California, still experimenting in raising new varieties of fruits and vegetables. According to D. B. Weir, in the *Pacific Rural Press*, the Burbank was raised 10 years ago in Massachusetts, and was introduced to the public 12 years ago. Mr. Burbank now devotes his time exclusively to experimentation, and is said to have grown during the past few years, 200,000 apples; has fruited a few thousand. Pears, 1,500,000, from 20 leading varieties—750,000 from Bartlett alone; none equal to the old. 200,000 apricots; promising. Quinces, 30,000. Mr. Burbank is determined to produce a quince with as melting pulp, and higher and purer than a pear. Almonds, 200,000; good showing. Nectarines, 5,000; these 5,000 will settle some mooted points, and give some fine varieties. Loquats, 2,000; not yet in fruit; hopeful. Currents, 20,000. Gooseberries, 8,000. Raspberries, 50,000.

"I had rather be the originator of Burbank's best raspberry than be President of the United States. To get at the exact size of this fruit, we gathered it, and all others in fruit in the same soil and culture at the time, just as we would for the market, and weighed an ounce of each, and found the following number to weigh an ounce: Gregg, as grown here, 28; selected berries, as grown in Ohio by Mr. Albaugh, 15 reported; Hansell, 28; Soungenan, 23; Beebe's Golden, 20; Mariboro, 15; Davison's Thornless, 30; Golden Queen, 18; Brinley's Orange, 18; Shaffer, 13; Burbank's new berry, 8½ to 1 ounce.

"This wonderful new raspberry is a seedling from Shaffer's Colossal, the largest berry in the above table except the new one. The Shaffer is taking the lead over all other varieties east as a canning and drying berry, and it should here. Its faults are that it is too dark-colored, being a dull, dusky red, and is too soft for market. It is the richest of cooking raspberries. The new one is much brighter colored, very much finer in flavor, nearly double as large, and—well, to be safe, I will say only four times as productive as it or any other berry. I think I would be safe in saying it will give six times the fruit of it or any other raspberry, and safe in saying that one 'hill' or stool of plants will,

in the course of a year, produce sixteen times the quantity of fruit of any other fruit not having the habit of fruiting in autumn and winter. This habit the new berry has in the greatest degree, not only giving an enormous crop of its immense berries at the usual time, but great masses of fruit through autumn and through winter, if mild. This habit is against its ready propagation, for instead of making 'tips' in August it makes fruit, and lots of it. Mr. D. Bank finds it grows poorly from root cuttings; therefore if some new way of increasing it is not found, its profit to the originator will be small."

This is only a part of the work Mr. B. is engaged in. If the writer is correct equally well numbers of dewberries, blackberries are among them. Trees, shrubs and flowers in enormous quantities are also mentioned, and great results are already obtained. California has given the world many surprises, and the quantities here quoted are certainly a fit subject of surprise.

Picking Apples.

The Ohio experiment station made an experiment last year to determine the effect of early and late picking upon the keeping quality of apples. The experiment was conducted by W. J. Green, and was begun Sept. 26, when all the varieties were considered sufficiently ripe to pick. The varieties were Baldwin, Roxbury Russet, Newtown Pippin, Jonathan, and Ben Davis. One hundred perfect apples of each were selected at each of four pickings, viz.: on Sept. 26, Oct. 6, Oct. 13, and Oct. 20. They were weighed, and stored in crates, in an ordinary cellar, and were weighed at frequent intervals during the experiment, and rotten apples removed at same time. At the end of two months no difference in keeping qualities between early and late picking could be observed. Baldwin, Roxbury Russet, and Jonathan showed a difference in favor of early picking before the expiration of six months; but Newtown Pippin and Ben Davis showed no difference until after the expiration of six months. After the expiration of six months the difference between the early and late pickings increased until the close of the experiment, 256 days from picking. The final conclusion drawn by Mr. Green is as follows: Early picking improves the keeping qualities, but no difference is manifest for nearly six months. If kept more than six months early picked apples show a decided gain over late picked. The greater part of the loss in weight, caused by drying, occurs within six months. Early picked apples lose slightly more in weight than those picked late.

Two months after picking, the average loss in weight was as follows: Baldwin, six per cent; Roxbury Russet, 15 per cent; Jonathan, seven per cent; Ben Davis, five per cent. Fifty-eight days after picking, there was little difference in the Baldwins of separate pickings; 175 days after picking there were 67 sound ones of the first picking, 46 of the second, 36 of the third, and 36 of the fourth; in 256 days there were three sound ones of the first picking and none of the other three. The following table shows the number of sound apples of each picking, 256 days after they were picked:

	1st.	2d.	3d.	4th.
Baldwin	3	0	0	0
Roxbury Russets	5	1	1	1
Newtown Pippins	8	8	1	1
Jonathans	11	9	9	0
Ben Davis	45	33	12	12

This experiment is also useful as showing the comparative value of the five varieties in keeping qualities. Ben Davis stands away ahead at all stages of the experiment. We would suggest following up the experiment with others including more varieties and different methods of keeping. One of the finest lot of apples we ever saw came out in the spring, say 200 days after picking, lay on the barn floor all winter, with just enough buckwheat chaff over them to keep them from freezing.—Ohio Farmer.

The Development of the Chrysanthemum.

The chrysanthemum has many varieties. It has yellow, white, red, purple or variously colored flowers. The native horticulturists have found it comparatively easy to modify its appearance and color. There is an old statement that the Soochow gardeners take it when it is a foot above the ground and pluck off the terminal but at the top. After a few days the buds originate two. These again are decapitated and a similar result follows, so that when autumn arrives the number of flowers on one stalk is very great, and they grow into a sort of round hemisphere like a cart covering.

It was the early discovery that modifications in the flowers could be produced in this way that led the Chinese to attach so much importance to this flower. It was about A. D. 430 that it became a special garden favorite and was valued by the poets. Tan Yuen Ming, of that time, was very fond of it, and a search especially in his poems has resulted in the fact that he classed it with the pine for endurance. The petals remain in their places after the winds and storms, and it was this feature in the flower which he admired. The Chinese represent yellow as the natural color, and they add that white asters after a year or two are apt to change back to yellow. In some varieties the flowers are deciduous, and in others not so. A pale yellow changes to white after the plant has flowered with unusual luxuriance; and white, in the same way, when exhibiting a tendency to variation, becomes red. Such flowers wither on the stem. When the petals are far apart they are apt to fall early and after the full period of blossoming they gradually drop off. If wind and rain should come and shake them, they all fall off together and cover the ground. Such observation of a flower as this is an example of the pains taken by the Chinese in the study of nature. The Soochow gardeners mentioned mean of course the gardeners of the great plain of which Soochow is the capital, and the gardeners with Tai-tang and Kiang Yin are particularly noticed as having a climate or local skill in horticulture, which greatly favor the variability of the Chinese aster. From the statement made it is probable that there is no part of China where there is more success in cultivating the China aster or more variety in it than in the gardens of these cities. There are coarse and fine varieties. Some chrysanthemums grow to ten feet in length, and some disks are as large as a saucer. Two colors appear on the same flower. These are called coarse varieties. The finer include velvety sorts and those which are cylindrical in shape, or turn to

the west, or are indented like wolves' teeth. Those which are most valued in China are flowers which begin with being small and grow larger, and petals which are close set, numerous and fresh in color.

The chrysanthemum flower is fabled by the Chinese to have the power of conferring immortality. To obtain the result it must be eaten with the fruit of the wutung by the believing. In Szechuan there is in the Confucian temple of the capital of the province an image of the genius of the chrysanthemum. The being represented is said to be a girl who drank the wine of the chrysanthemum flower in the Han palace, and thus became immortal. Those students who pray to her are successful in the examinations. In a cave of the same city there is a painting, drawn upon the wall, of a woman holding a chrysanthemum in her hand. Before her is represented a monkey. She is called "The Lady of the Chrysanthemum," and students who pray to her have remarkable dreams; the dreams conveyed in these dreams are, wonderful to relate, sure to come true, say the native accounts. The chrysanthemum sinense has probably for two centuries been well known in Europe. The flowers, whether of the ray or the disk, are never blue, but they appear with almost every other possible color. The books say that the Chinese must for long ages have known the chrysanthemum and that their great richness in development and in variety of properties has risen from sporadic peculiarity and intermixtures with allied species unknown in Europe. This last effect would be caused by insects bringing with them in their visits to the flowers the pollen of neighboring plants.

FLORICULTURAL.

SYRINGA plants affected with red spider will greatly aid in clearing them of this troublesome insect. They cannot stand a moist atmosphere.

It is noticeable that the varieties of coleus, alternanthera, canna, caladium, and other ornamental leaved plants are displacing, to a very large extent, the ubiquitous geranium for bedding purposes.

Sow the seeds of larkspur in the fall as soon as they ripen; then as soon as the plants have made sufficient growth transplant into boxes and winter over carefully. As soon as the danger of frost is over, set them out in the open ground, and they will flower next summer.

THE nasturtium has been a society favorite this year. It is very likely to hold its popularity another season. Plant it, therefore, next year, and mass its rich, brilliantly blazed blooms in vases, where they glow like flame. One color to a bouquet; do not mix your hues.

If you have an unsightly shed or fence in the yard cover it with vines. The climbing nasturtium, morning glory, and scarlet runner beans will grow in almost any soil, providing they can have the sun part of the day, and when in bloom make a brilliant show. They require very little care outside of a daily watering in dry weather, or a weeding once in a while, and strings for their support. They will repay any labor spent on them.

E. E. SUMMERY said at the meeting of the American florists, in reply to a query as to what had become of Mrs. Majesty rose, that after three years of patient waiting and care had been rewarded with two splendid blooms—the foliage showing no signs of mildew, and the plant proving perfectly hardy with a light covering of marsh grass. The flower was very double, of a fine, satiny rose color, and of so much substance as to be in good condition for over two weeks. It is slightly fragrant and so pleased was he with it that it will always find a place with him if it only gives one bloom a year.

A VERY pleasant and interesting floral fest was held at South Haven recently. Although it was hardly a financial success, it should have been such had it received the patronage it deserved. The margin above expenses and premiums was a small one, but sufficient to encourage the management to hope for better results at the exhibition which it is proposed to hold in 1890. Rev. W. S. Bugay made a very excellent exhibit of seedling gladiolus, four years from the seed, among which were some beautiful flowers. Some of the floral designs were fine, and won special premiums. Mr. E. S. Thompson showed twenty-one varieties of single petunias, including one so dark in color as to pass for black.

AT the recent convention of American florists held at Buffalo in August, the removal of the duty on bulbs was discussed. Many of the members advocated admitting bulbs free of duty. Florists say they can raise good out-door bulbs in this country as raised anywhere, and bulbs for forcing cannot be grown here anyway. But our modesty (!), which makes us believe that what we can make ourselves is not quite equal to what some one across the ocean can make for us, still leads us to prefer "imported" bulbs as well as imported cloths and bonnets, even though there are good grounds for believing that not a few of the goods we buy as imported are really of American manufacture.

THE Tiger Lilies—*L. tigrinum*—and allied species, are finding favor once more with florists, as their rich colorings, so Oriental in suggestion, are sought by those who are ever on the search for new things—and able to pay liberally for them. A collection of the different varieties would be a very showy and interesting one. It is a good plan to take up the bulb after every three years, and replant them, giving fresh soil. Grown this way they will produce a much larger quantity of bloom than if left in the same spot after a year or two are apt to change back to yellow. In some varieties the flowers are deciduous, and in others not so. A pale yellow changes to white after the plant has flowered with unusual luxuriance; and white, in the same way, when exhibiting a tendency to variation, becomes red. Such flowers wither on the stem. When the petals are far apart they are apt to fall early and after the full period of blossoming they gradually drop off. If wind and rain should come and shake them, they all fall off together and cover the ground. Such observation of a flower as this is an example of the pains taken by the Chinese in the study of nature. The Soochow gardeners mentioned mean of course the gardeners of the great plain of which Soochow is the capital, and the gardeners with Tai-tang and Kiang Yin are particularly noticed as having a climate or local skill in horticulture, which greatly favor the variability of the Chinese aster. From the statement made it is probable that there is no part of China where there is more success in cultivating the China aster or more variety in it than in the gardens of these cities. There are coarse and fine varieties. Some chrysanthemums grow to ten feet in length, and some disks are as large as a saucer. Two colors appear on the same flower. These are called coarse varieties. The finer include velvety sorts and those which are cylindrical in shape, or turn to

the west, or are indented like wolves' teeth. Those which are most valued in China are flowers which begin with being small and grow larger, and petals which are close set, numerous and fresh in color.

AN English writer says: "We shall never want more physian than we now take, nor more law, nor more sermons, but fruit, flowers, vegetables?—Yes, double, treble."

THE Horticulural Times suggests that the cause of peats rotting at the core may be soil exhaustion, and prescribes rich feeding, on the supposition that the soil is deficient in nutrients.

MR. L. C. CRITTENDEN, of Fair Plains, has

the plants no harm, while a damp and confined air will cause the leaves to perish.

I regard it as a very important operation whether it is winter or summer, but it is more necessary, perhaps, from the time they are put into the frames to the middle of February than at any other time. The more unoccupied space there is between the plants during the short days of winter, the less likely they are to suffer from damp, as the sun has a better opportunity of circulating about them and dry up any excess of moisture.

I contend that the test of a man's abilities as a successful grower of violets is the condition of his plants at the end of February. Hence it is a grave mistake to cut off the leaves of the grape, tomato, etc., expecting the fruit to ripen better. It may color fairly well, but will be deformed in weight and quality.

THE first carload of dried figs ever sent from California was shipped from Fresno recently. They were of the White Adriatic variety, well cured, handsomely packed and rich in sugar, and went to Chicago. California dried figs as exhibited at the Detroit Exposition were as fine in appearance as any imported goods we ever saw.

A MACHINE has been invented for setting plants, and been used on tobacco plantations in the South. It sets two rows as fast as the horses walk, and waters each plant. One man drives, and two others ride and feed the plants, one at a time, into a wheel which in revolving sets the plant, presses the earth to its roots, and delivers a pint of water to each.

J. H. HALE pronounced the Oldman the best eating peach that grows. He planted more largely of it than of any of the others, and expects to have not less than 6,000 bushes of this one variety. He finds that one orchard of this variety on light sandy soil is ripening its fruit ten days ahead of other orchards, and these will all be out of the way before the others come on, and so prolong the season ten days.

THOMAS MEHAN, in the *Country Gentleman*, says: "The Wild Goose plum, to be fully productive, appears to require pollen from other trees. By mistake, we tested this characteristic many years ago. Eight trees of this plum were planted in a row, suckers received from a gentleman in Georgia. All bore moderately and one of them abundantly. We wanted only one tree, and so grubbed up all but the productive one. It had depended on the fertilizing from some of the other trees, and when the trees were gone it ceased to bear. The contrast was striking. It was stated, at the late meeting of American Nurserymen, that the Wild Goose was a very good bearer only when fertilized."

IF you have an unsightly shed or fence in the yard cover it with vines. The climbing nasturtium, morning glory, and scarlet runner beans will grow in almost any soil, providing they can have the sun part of the day, and when in bloom make a brilliant show. They require very little care outside of a daily watering in dry weather, or a weeding once in a while, and strings for their support. They will repay any labor spent on them.

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MICHIGAN FARMER
—AND—
STATE JOURNAL OF AGRICULTURE
GIBBONS BROTHERS,
—**SUCCESSORS TO**
JOHNSTONE & GIBBONS, Publishers,
Nos. 40 and 42 West Larned St.,
DETROIT, MICH.

—
EASTERN OFFICE: 21 Park Row, New York.
P. B. BROMFIELD, Mgr.

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DETROIT, SATURDAY, OCT. 12, 1889.

This paper is entered at the Detroit Post Office as second class matter.

STOCK SALES IN MICHIGAN.

The following dates are claimed by Michigan breeders for sales of stock:
Oct. 16—Coe Bar, Kalamazoo, Hereford cattle, English Horses and Poland-China swine. J. A. Mann, Auctioneer.

Oct. 24—W. C. Wixom of Wixom, Shorthorns. J. A. Mann, auctioneer.

Oct. 24—A. W. Hissell, Pewamo, Merino sheep, English swine and calves. To be held at Ionia. J. A. Mann, Auctioneer.

Oct. 25—John C. Sharp, Jackson, Shorthorn cattle.

WHEAT.

The receipts of wheat in this market the past week amounted to 236,319 bu., against 178,690 bu. the previous week, and 459,384 bu. for corresponding week in 1888. Shipments for the week were 185,811 bu., against 182,866 bu. the previous week, and 236,945 bu. the corresponding week last year. The stocks of wheat now held in this city amount to 219,597 bu., against 109,315 bu. last week, and 1,016,427 bu. at the corresponding date in 1888. The visible supply shows a decrease during the week indicated of 1,421,634 bu. The stocks now held in this city amount to 9,236 bu., against 11,551 bu. last week, and 70,825 bu. at the corresponding date in 1888. The market is very dull, and prices are gradually sinking. For No. 2 33½c was the best offer at the close yesterday, and 33c for November delivery; December futures were nominal at 32½c. Michigan feeders will have cheap corn this year, and in some sections considerable will have to be bought. At Chicago yesterday corn declined a fraction and closed dull. No. 2 spot is quoted there at 31c per bushel, December delivery at 30½c, and May at 33½c. As compared with a year ago the visible supply shows a decrease of 12,687,072 bu.

While there has been a great deal of talk in regard to the position of the wheat market, and all kinds of rumors put out to influence prices one way or another, the change in values as compared with a week ago is 3½% up on spot and 3½% on future. There is no doubt the market is stronger, the feeling being induced by reports from European markets, which have been gradually working upwards. There is a better demand for American wheat for export, and it looks as if any change must be towards a higher range of values. The week closes with a slight decline at Chicago, a greater one at New York, and a decline here. Trading in this market is very light, and in many instances just sufficient to determine values. The decline yesterday was attributed to the Government crop report, which will be found in another column. The weakness will probably last about 24 hours, and then we look for a recovery.

The following table exhibits the daily closing price of spot wheat in this market from September 12th to October 11th inclusive:

No. 1	No. 2	No. 3	Red.
Oct. 1	81 1/4	81 1/4	75 1/4
2	81 1/4	81 1/4	75 1/4
3	81 1/4	81 1/4	75 1/4
4	81 1/4	81 1/4	75 1/4
5	81 1/4	81 1/4	75 1/4
6	81 1/4	81 1/4	75 1/4
7	81 1/4	81 1/4	75 1/4
8	81 1/4	81 1/4	75 1/4
9	81 1/4	81 1/4	75 1/4
10	81 1/4	81 1/4	75 1/4
11	81 1/4	81 1/4	75 1/4

Sales of No. 2 white were made at 75 1/4c, and of No. 3 white at 63c per bu.

The following is a record of the closing prices on the various deals in futures each day during the past week:

Oct.	Nov.	Dec.	Jan.
Saturday	82	82	84
Monday	82	82	84
Tuesday	82	82	84
Wednesday	81 1/4	82	84
Thursday	82	82	84
Friday	81 1/4	82	84

Brazil has changed her tariff so as to place a duty upon flour instead of wheat, as heretofore. This is the reason of recent shipments of wheat to that country, where flour was formerly sent.

Since Monday quotations on California wheat have advanced in London 6@9d, per quarter (eight bushels).

Reports from Russia say farmers there are not satisfied with present prices, and refuse to sell. They feel certain of higher values prevailing, as the crop has been poor in most sections. The grass crop was a complete failure, and coarse grains will have to be used in feeding stock, which will tend to make other grains scarcer as these cheap grains have generally been used as breadstuffs by the lower classes.

The London Miller says that the English wheat crop is far inferior in quality to expectation, and will frequently require 8½ measured bushels to make up the quarter instead of eight bushels as usual.

Dornbusch, in issue of September 27, says that in Austro-Hungary the export prospects are most unfavorable. The home consumption of wheat is just about covered (by the yield), and that is all. The stock remaining from last year's crop, say 30,000,000 bushels, will be required to supply the deficiency in rice.

From Ossesa, Russia, reports say business in wheat is at a standstill, and that "the consuming countries seemed to place much reliance upon the reserve of the last crop, but the surplus is not so considerable as had been imagined." It may be inferred from these and other remarks that higher prices have already drawn out much of the surplus.

The following table shows the quantity of wheat "in sight" at the dates named, in

the United States, Canada, and on passage to Great Britain and the Continent of Europe:

Creamery, State, pails, fancy	25 @25¢
Creamery, State, pails, prime	24 @24¢
Creamery, State, tubs, fancy	30 @25¢
Creamery, prime	18 @19¢
Creamery, good	18 @15¢
Creamery, fair	18 @15¢

The estimated receipts of foreign and home-grown wheat in the English markets during the week ending September 28 were 1,575,450 bu. more than the estimated consumption; and for the eight weeks ending Sept. 14 the receipts are estimated to have been 2,381,504 bu. more than the consumption. The receipts show an increase for those eight weeks of 6,010,816 bu. as compared with the corresponding eight weeks in 1888.

The exports of butter from New York since May 1, the beginning of the trade year, compare as follows:

Exports.	Ibs.
For week ending Oct. 30	85,967
Same week 1888	53,774
Since May 1, 1889	9,699,789
Total same year	32,095,135

The estimated receipts of foreign and home-grown wool in the English markets during the week ending September 28 were 1,575,450 bu. more than the estimated consumption; and for the eight weeks ending Sept. 14 the receipts are estimated to have been 2,381,504 bu. more than the consumption. The receipts show an increase for those eight weeks of 6,010,816 bu. as compared with the corresponding eight weeks in 1888.

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The exports of butter from New York since May 1, the beginning of the trade year, compare as follows:

Exports.	Ibs.

Poetry.

MAN'S LIFE.

Before the beginning of years
There came to the making of man
With a gift of tears;
Grief, with a glass that ran;
Pleasure, with pan for heaven;
Summer, with flowers that fell;
Remembrance fallen from heaven,
And madness risen from hell;
Strength without hands to smite;
Love that endures for a breath;
Night, the shadow of light;
And life, the shadow of death.

And the high gods took in hand
Fire, and the falling of tears,
And a measure of sliding sand
From under the feet of the years;
And frost and drift of the sea;
And dust of the laboring earth;
And bodies of things to be
In the houses of death and birth;
And wrought with weeping and laughter;
And fashioned with loathing and love,
With life before and after.

And Death beneath and above,
For a day and a night and a morrow,
That his strength might endure for a span
With travail and heavy sorrow,
The holy spirit of man.

From the winds of the north and the south
They gather us unto strife;
They breasted upon his mouth,
They fled his body with life;
Eyesight and speech were wrought
For the souls of the sons therein,
A time of labor and thought,
A time to serve and to sin;
They gave him light in his ways,
And love, and a space for delight,
And beauty, and length of days.
And light, and sleep by the night,
His speech is a burning fire,
With his lips he laid his life;
In his eyes the blind desire.
In his eyes foreknowledge of death;
He never saw, and is clothed with derision;
Sows, and he shall not reap;
His love is a watch or a vision
Between a sleep and a sleep.

—Swainburne.

THE SAILOR'S DANCE.

What's he that takes of a jig or a reel,
Who has never been a sailor,
Or a hornpipe seen on a ship of a Queen,
Or an Arctic Ocean whaler?
You hear the ring of the box'n's call—
"For a dance, my lads, all ready;
The moon is high in the radiant sky
And the old ship going steady!"
Then it's heel and toe
To the tuneful bow,
And it's all so light and breezy;
You may look in France or Spain for a dance,
But you'll say
Any day
That the hornpipe beats them easy.

III.

The star alone has a dance of his own,
And it takes a tar to dance it.
Though a lassie sweet with two little feet,
Is the one charm to enhance it.
You dance with one or you dance with two,
As the notion takes your fancy,
An Indian glade, with a dusky maid,
Or at home with blue-eyed Nancy!
For it's heel and toe
To the tuneful bow,
And it's all so light and breezy;
You may look in France or Spain for a dance,
But you'll say
Any day
That the hornpipe beats them easy.

—Temple Bar.

Miscellaneous.

THE BLACK BUOY.

"Swim," said Grandmamma, as we sat around the crackling billets one evening. "Every boy and girl should learn to swim. Why, I could swim like a duck when I was a girl. Dear me, dear me!"

Grandmamma sat bolt upward in her high-backed chair, resting her elbows on the arms, and smiling across at grandpapa—who sat on the other side of the hearth—with a conscious look in her bright old eyes. Grandpapa, the general, pausing in the act of raising his tumbler to his lips, nodded and smiled back again at grandmamma. They were both white-haired, bright-eyed and rosy-cheeked, both sat, straight and erect, in tall, red-cushioned oak chairs; and each saw the other through an effacing medium that smoothed out wrinkles, restored hyacinthine locks, and blotted out the fifty years that lay between them and youth.

Now, when we, the youthful descendants of this stately pair, grouped in lazy attitudes around the vast, roaring hearth, with its tall carved chimney-piece, saw the meaning looks that were exchanged between our respected progenitors, we scented a story. And when a many-colored appeal for the story broke from us, grandmamma hesitated for a moment and shook her head, then looking across to grandpapa, who nodded again, and after a little pressing said this:

You know, young people, that you are of good family only on your grandfather's side, and not on mine; for he came from an old and honorable stock, while my father was only a ship's boy. My father was killed in a great sea-fight, when I was only a little child, and I was brought up by my grandfather, who was ostensibly a boatbuilder and fisherman, but in reality a smuggler! A successful smuggler, too! In those days smuggling meant great risks and enormous profits, for duties, especially on foreign wines and spirits, were exceedingly high. It was not only a profitable trade, but it was reputable in a peculiar sort of way; for it required great courage and great skill. England was always at war in those days, and the smuggler ran the risk of being snatched up by an enemy's cruiser, as well as of falling into the clutches of a revenue cutter. In addition, there were the inevitable chances and dangers of the sea, so that a good smuggler had not only to be a man of great daring but of great knowledge of navigation. He had to

work into harbor on the darkest night, for it was only on dark nights that he could venture on a "run"—with the utmost secrecy and despatch. To do that, he must know every inch of his way, be able to distinguish landmarks and buoys where an unpracticed eye would only see indistinct blackness, and know to a nicely what time the tide turned, and twist of the sandbanks, and the position of the sunken rocks.

My grandfather could neither read nor write, and he had as I think for that reason, a wonderful memory. He was assisted in his work by my two uncles, both illiterate men like himself, and the three seemed to find their way, through long practice and acute observation, as if by instinct. There was only one channel leading to the landing place; the mouth of the little river where we lived being almost choked by sand-bars which ran out to some distance. It was necessary to hit this channel a considerable way out at sea, and a small black buoy bobbed up and down to indicate its commencement. One side of the harbor was formed by a line of rocks, jutting out to some length and sloping down gradually into the water; and the buoy was distant from the extremity of these rocks about three-quarters of a mile. This headland was called the Point.

The black buoy, a mere speck on the waters, was had enough for any one to find in the broad day; yet my grandfather never failed to find it in the dark—for of course it was only on a moonless night that he could hope to run a cargo. The usual course of proceeding was thus: The lugger arrived off our coast at nightfall, lay to until a signal was flashed from our friends on shore, and then found the entrance to the channel, and worked in with the tide. It was necessary to be very careful in hitting off the channel at first, where the buoy was, or they might run on the sunken rocks at the extremity of the Point.

Grandfather and I lived in a pretty cottage at one extremity of the village. Our house was better than most of the others, for grandfather had money in the bank, and was well to do. The cottage was covered with honeysuckles and creepers; at the back was a grassy bank sloping down to the sand, at its junction with which stood our wooden boat-house. By the boat-house lay three or four of our boats, broad, strong, and unwieldy; and opposite the boat-house were the moorings of the Little Lady, our naughty fast sailing, clever little lugger.

I had a very independent, irregular kind of life. My grandfather was often away for days at a time, and the old woman who looked after the house—for grandmother was dead long since—would have had little time for scouring and cleaning she had tried to look after me. I got a little book learning from the old vicar, but it was not enough to hurt me. No, my dears; I knew no Italian, or Latin, or algebra; but my eyes were none the less bright, my lungs none the less clear, my color none the less blooming, than the young maid, whose only trouble was her long tresses of thick brown hair, and who bothered her head very little with the other sex.

Not but that I had my admirers. But they were limited in quantity and coarse in quality, I mean rough; manly enough, but lacking in that refinement which a young girl in any rank of life always longs for, and with sometimes sad results. Anyhow, the bold young fisherman who made sheepish overtures to my formidable self, excited nothing on my part but polite amusement, and I was heart whole. I was very happy, had a wonderful appetite, and sound in wind and limb; and perhaps, young people, you have to thank the rough freedom of my early life for the excellent constitutions which you now enjoy.

On a certain day in September when I was nearly seventeen years of age, my grandfather being absent on one of these expeditions, and expected back at night, I set off for one of the long rambles in the country which I was in the habit of taking when he was away. As I was not allowed to go off in this fashion when grandfather was at home, I made a big day of it, starting immediately after breakfast, and taking some bread and meat with me for dinner. I rambled much farther than I intended, lost my way more than once, and the night was coming upon me. I was being already on the seaward side of the village, it was not far distant. So I stepped out briskly and soon came to the little gully or ravine in the rocks which led to my cave, and up which, in the course of the night, our smuggled treasures would be stealthily conveyed. Carts used to stand at the upper end of it to take them away.

I slipped into my cave, felt for my dress and found it, and too lazy just then to face the ascent up the gully again, stood gazing out to sea and wondering where my grandfather was at that moment. Then I turned homeward. I had gone about a third of the gully, which was very dark, when I heard a strange sound. I stopped to listen. It was not the scream of a sea-bird, nor the moaning of the sea. It came down the gully and drew nearer, boat, beat, with a little very distinct jingling sound. It was the tramp of men and the clink of steel. Soldiers! I had never seen any; but I guessed what they were. In a moment I had scrambled cautiously up the rocks and hidden behind a ledge. I crouched perfectly still, with every sense on the alert. Suddenly two men came slowly down the gully talking in low voices. They wore long cloaks, and their weapons jingled as they walked. They passed me and stood at the lower end of the gully. The air was very still, and I could hear every word they said.

"This is the place, sir," said the bigger and stouter of the two. "The goods are landed at the left here, carried up the channel

gully, and received at the top by the carts. The carts stand where we came down."

The other, who by the ease of his bearing and the deference of the big man, I took to be an officer, had a paper in his hand. He looked round him, evidently taking in the features of the place.

"There won't be any carts to-night, Sergeant," he said in a pleasant voice. "The people in the village know we are here, and are sure to warn them. I hope you won't manage to warn the man we want."

"Not you, sir," answered the sergeant. "Not a boat can leave the harbor without being stopped by our men; and not a man can leave the village and come in the direction of the Point, if you post the men at the worst watch of the whole. The lugger must inevitably pass within half of me, but what if my passage was bobbing fast? I had been without food since noon, I had walked many miles, swimming is an exacting exercise, and I had still to exert myself resolutely, with the tide running fast, to maintain my present position. My limbs moved mechanically, my head was dull and heavy, and there was a sort of tingling in my ears. I was going fast."

"Ye keel weel that I care," replied the sergeant doggedly. "The last time I was here ye made objection to me bin' a baker, but ye said pick that bone wi' me father for appecin' me to that trade. Ye remarked that ye'd always intended to marry wi' a sailor. But I canna be a sailor-a-grillin' wet ropes, climbin' up bare poles like a dancin' bear, to pleasure even ye at my time of life."

A little gleam of parting waters, a black mass looming blacker than the darkness, and I summoned all my energies for a shout.

"Little Lady, ahoy!"

A voice came from the darkness. "Little Lady is. Who are you?"

"Lay to and throw a rope over your starboard quarter."

The lugger was not thirty yards distant, I made my last effort and swam to her. A firm expression was settling upon her mouth and I had just time to give my warning before I fell fainting on the deck.

The sergeant produced something, probably a lantern, from under his cloak. "Here is the signal, sir."

The sergeant saluted and clanked up the gully, while the officer walked slowly toward the water and stood at the edge—some distance from me, for the tide was getting low—with his head bowed, and his hands clasping the paper behind his back. I ventured to breathe freely again, and began to review the situation. What did it all mean? It meant that the authorities had got wind of my grandfather's doings, and had sent this detachment of soldiers to take him in the act. It must be grandfather, because there was no one else in the village likely to be aimed at. And if they caught him, what then? "Transportation for life?" What was that? It was no uncommon punishment, I had heard, for a smuggler taken, as my grandfather was likely to be, red-handed. For a moment the hope flashed into my head that he might not come that night. But no! The wind was light and not unfavorable; there was no suggestion of a fortunate storm in the sky, and I knew that our friends with the wagons had arranged to come and that all was in readiness. My heart sank within me as I thought of my old grandfather's gray hairs disheveled in a felon's dock—to be aimed at. And if they caught him, what then? "Transportation for life?" What was that? It was no uncommon punishment, I had heard, for a smuggler taken, as my grandfather was likely to be, red-handed. For a moment the hope flashed into my head that he might not come that night. But no!

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The wind was light and

IN THE FOG.

Vails of pallid mist and gray
Wrap the world of yesterday;
Far-flung island, rocky cape,
Vast ocean, boundless shape,
Sun and sky, and waters blue—
All are blotted from the view.
Cut to sea we blithely stare;
Did we dream that such things were?

No; untouched and safe and sure,
All these lovely things endure;
Underneath that hovering mist,
All the blue and amethyst,
All the green and gold,
All the sunbeams rippling free,
Mountainous forms and islands green—
All are there, though unseen.

If we bravely bids and waits
Through this brief eclipse of Fate,
Smile through the unsmiling noon,
Keeping heart and hope in tune—
Shadow shall give place to sun,
And out-stealing, one by one,
All the fair things mourned in vain
Shall be made our own again.

Dear heart, faint heart, who in shade
Sits silent, perplexed, afraid,
At the brief emanation,
Of yesterday's content—
Courage take; for hopes endure,
Though a little mist obscures,
And behind the fog-wreaths dun
Brightens the eternal sun.

—Susan Coolidge, in S. S. Times.

THE BITER BITTEN.

One Case in Which the End Justified the Means.

There was death in the house; there was
horror on every face; there was the tramping
of men's feet striking a chill to the
hearts of those who mourned. And the
mourning was not the soft resignation
of grief sent from Heaven alone, but the
despairing agony of shame, horror and ruin.

For Charles Wurtz, who lay upon his bed,
waiting the corner's coming, had died by
his own hand. He was dead.

Only one short day before,
the twenty-four hours of time, there
had been joyous hearts under the roof where
no sorrow reigned, and it had seemed as if
poverty and trouble had been set apart
from those now crushed under their weight.

In one of the lower rooms, a spot of home
workshop with a bench, tools, books and
drawings scattered about, Charles Wurtz,
the son of the suicide, sat with his head
upon his crossed arms, motionless, rigid in
the agony of a despair that would have
wung groans and tears from a weaker man.

The room was cold, and already two
hours past, when the sun had begun to
stirred for hours, and seemed un-
conscious of the lapses of time. He was
roused by a light touch upon his shoulder,
and a voice, full of sympathy, saying:

"Charlie, you have eaten nothing to-day.
Come with me to Berta—poor little Berta."

The young man lifted a face that, in
spite of the wretchedness stamped upon it,
was still a handsome one, and spoke
boldly:

"You hear, Katie! Then you did not re-
ceive my letter?"

"I did. We will not talk of that now.
Come."

Mechanically he obeyed the tender voice,
the light touch of the little, soft hand. She
led him to a small, cozily-furnished dining-
room, where a bright fire burned in the
grate, a tea-table was spread, and a slight
fair-haired girl of sixteen, with a pale, a-
fraid-stricken face, was trying, with all her
girlish strength, to smile a welcome.

"Katie says you must eat, Karl," she
said, tenderly, in German, the home lan-
guage in the family, and so there was
nothing more said. The two were to be
alone else here. Dr. Leider says:

"But, Katie!" Charlie persisted. And
then the dark-eyed girl who had coaxed
him into the room spoke.

"Karl!" she said, bravely, though a deep
blush crept to her cheeks, "if this had hap-
pened one week later, I should have been
your wife."

His only answer was a gesture of despair.
"Finally," she said, steadily, "that it
was not to be."

"No, my own brave, true Katie," he said,
loosely. "Yesterday I could think of you
as the dear, cherished wife of a man on the
high road to fortune. To-day?"

"I scarcely understand yet, Charlie."

"You know, my own, that my father,
after years of study, had perfected a patent
that promised to make his fortune. It was
still a weary time before he could command
a sufficient sum to procure his freedom—
necessary to go into business on his own."

But, too, he conjectured, and we had two
other proprietors, capitalists, who knew nothing
of the process, but see money in the
invention. After all the years of struggle,
our machinery was built, our patent upon
the market, and now—this day—I have
orders for nearly fifty thousand dollars'
worth of work. Darling, it was not until
the whole was an assured success that I
asked you to be my wife."

"I asked, dear," Katie said, "that it
wasn't enough for him to be rich, but that
he was a man and a son that he
deserved a wife."

He noticed that she was very pale and a
little nervous. A moment crept into her
darkness. Then it was replaced by one of
those moments, as if she mentally regis-
tered a vow she would keep till death.

The next weeks passed in a whirl of busi-
ness perplexities. The general who had
been sent to buy the machinery de-
manded it back; the new proprietor flour-
ished his bill of sale, and forbade the work
to go forward until he was ready to direct
it, and then Charles Wurtz had his revenge,
and but an empty one.

Not one man in the factory understood
the preparation of the material needed
for the invention. This had been prepared
by the father and son. Without it the entire
factory was worthless. Through a sharp
word from Charles Wurtz offered to pay
one hundred years, Charles Wurtz, who
had been advised by silent partners, was
to go to jail, and he was to be taken
into full partnership. The offer was per-
emptorily refused, and the false friend
found himself the owner of expensive
machinery he could not use, and a patent he
could not sell.

It might have ended in some compromise,
but Charles was offered a clerkship in an-
other city, and Berta, home in Germany
with her mother's sister. So the old home
was broken up, and Katie, brave and true,
left to wait for fortune smiling kinder again
upon her.

But women are hard to understand,
and there were not wanting significant
smiles and sneers when Herman Schor-
man was seen visiting at Katie's, making
friends with her widowed mother, sending
gifts of flowers, fruits, books or music. It
was well known in the little circle of society
to which they belonged that Herman
Schorman had been Katie's suitor since she
was a mere school-girl.

Great was the whole affair with its
usual clear-sightedness. Katie had ac-
cepted Charles Wurtz when fortune
seemed with his grasp, and had thrown
her over when he was ruined. Herman

desperate fight, you are pretty apt to have
trouble."

The principle of dealing with burglars as
laid down by the detective has been recog-
nized as the correct one, and devices for
giving alarm to the inmates of a house for
a year. Finally the English joined the league
against him under George I.

Charles had a Minister from Germany by

the name of Baron Gortz, a sort of Bismarck
in this time, who had designed to invade Eng-
land and detach Russia. The Swedes did

not like the prospect of the coalition that

was coming, and Charles XII. was assassi-
nated, it is believed, by his own people.

They found in the body when he was

assassinated Gustavus Adolphus,

his ancestor, and a prayer-book. They buried

him in a church where Gustavus Adolphus

lies, and put upon the trophy of his many

battles.

Baron Gortz was beheaded for having

sustained Charles XII., and Sweden began

to sink out of the rank of first-class

kingdoms. Charles was a handsome man,

with no vices, except obstinacy and austere-

ty.

Germany he came to his own dominions in
1714 at Stralsund, which was immediately
invaded by the Russians, Prussians, Danes
and Saxons, and he stood the siege for a

year. Finally the English joined the league

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Oct. 12, 1889.

Continued from first page

cost 5.35 cents. This shows the effects of feed on the same cow. The difference in cost of a quart of milk from the poorest cow was 4.26 cents; from the best cow, only 1.50 cent. The average cost of a quart of milk from the whole herd was 2.74 cents. These figures most strikingly illustrate the difference in both feeds and animals. Averages are deceptive and misleading. They may show a profit where there is one much larger if the unprofitable cows were out of the herd. There is here shown a difference in cost of about 200 per cent. in the cows, and 400 per cent. in the feed, to produce a quart of milk.

Milk for Cheese.

A cow that gives a large mass of fairly rich milk, to solids, may be a good cheese cow, but not worth much for butter; or she may give milk rich in butter fat, but in globules so small that they do not separate freely and perfectly from the milk, and be a good cheese cow, or producer of milk for market, but be unprofitable for butter making. The market does not demand very rich cheese, that containing 28 to 30 per cent. of fat bringing about as much as that containing 40 per cent., and hence it is not profitable to make very rich milk into cheese. But it is desirable to retain in the cheese all the fat there is in the milk. For this reason, milk for cheese making needs to be handled very differently from milk for butter making. For the latter, you cannot strain the milk to soon nor too warm from the cow, and set it for creaming. But for cheese making, you cannot stir and air milk too much in a clean atmosphere, nor cool it too soon. The same is true of milk for market. It is desirable for both purposes to keep the cream from separating from the milk as much as possible. It may be stirred in and incorporated with the milk again, but not as evenly and thoroughly as it is distributed through the milk before separation. When made into cheese, constant stirring of the milk is required while it is heating for setting, and especially after the rennet is added until it begins to show signs of coagulation. If stirred longer, the curd will not be solid. But stirring up to this point is the only thing that will prevent oil from rising and floating on the surface of the whey, to run off with it, unless it is skimmed off. A very little will make quite a show and annoy by adhering to everything that it touches; but when saved is of little use, unless it may be in cooking. The better way is to carefully retain it in the milk by stirring as long as it is safe, so that the fat globules will become entangled in the curd, to give quality to the cheese.

Butter Yields.

Prof. W. W. Cook is credited with saying that in Vermont the average yield per cow is only 130 pounds of butter per annum, while there are 30 dairy farms in the State that average over 300 pounds per cow. The average yield in the State is very low; but progress is indicated by the fact that it contains the 30 herds averaging 300 pounds. Ten years ago there was not as many 300-pound herds in the whole country, and men used to travel long distances to see such a herd. Ten years hence they will be still more numerous. Such herds are now found in every dairy State. It is not possible for all dairymen to have them, as yet; but are they not possible for every one in the not very distant future? The use of blooded bulls from noted families, and careful breeding and selection from the best cows, are the sources of such herds. Improvement may be made and profit realized in the first generation; so that the introduction of better blood pays almost from the start; and it is a dull dairyman who is content with 130 pounds per cow per annum, or even 150 or 200, when 300 pounds are possible. In some instances, herd averages have exceeded this; and in many individual cases the yield has been almost doubled. A Swiss cow, owned by Hon. Thomas Allen, Pittsfield, Mass., in 1879, made 610% pounds of butter, which sold for \$182.56. These examples of possibilities ought to act as powerful stimulants to the improvement of dairy stock.

Apples for Cows.

Many are not aware that apples are excellent food for milch cows, and generally more valuable to feed than to sell at the low price which can be obtained for them for cider making. The popular impression is that they shrink the milk. But they do this only when fed to excess, and many other foods do the same. Some years ago we visited the late Prof. L. B. Arnold who was experimenting with the feeding of apples. His testimony was strongly in their favor as milk producing food, they both increasing the flow and improving the quality of the milk. Other prominent dairymen have given similar testimony. But care must be taken—at first, at least—not to feed them too heavily. Six quarters or a day is sufficient to begin with. After a little, some have fed as high as half a bushel a day to each cow, with good results. It does not seem to make much difference whether the apples are sweet or sour. Prof. Arnold rather gave preference to the sour. A mixture is probably better than either alone. If well ripened, the apples are more digestible and nutritious. In gathering, it would be better not to mix the apples promiscuously, but to store them so the ripest can be fed first. Where cows are not suddenly disturbed—as by a strong one pitching into a weaker one—there is not much danger of choking, especially if the apples are mellow and in their best condition for feeding. To avoid accident, it is better to feed apples while the cows are standing quietly in their stalls and can take plenty of time to eat them.

Why is This Thus?

The moment Prof. Sanborn gives facts and figures showing that the silo did not pan out, in his experience, as sanguinely represented by its advocates, the hot-heads pounce upon him as an opponent of the silo, trying to write it down, when the man never had such a thought! So, too, the moment a word is said by any one in favor of the private dairy, its improvement and its advantages, a lot of creamy advocates jump onto his neck and try to ride him to earth! Why this extreme sensitiveness about what they say "has come to stay?"

TRANSFERS OF SHEEP.

Recorded in the Michigan M. S. B. Association.

Below find list of sales of sheep recorded in Michigan Merino Sheep-Breeders' Association:

R. Dewey to A A Wood, Saline, rams H R Dewey 169, 205, 207, 231, 233, 235, 243, 257.
R. E. Wood to A A Wood, Saline, rams I E Willett 111, 114, 116, 117, 118.
A M Willett to Chas Heahan, Paleo, ewes A M Willett 260, 291.
H. J. Morris to W H Sprague, Farmington, ram L 91; ewes E S Sprague 2, 5, 6, 7, 9, 10, 11, 12, 13, 19, 20, 23, 24, 31, 32.
J. W. Morris to M. T. Morris, Texas, rams J W Morris 68; E H Morris 40, 42, 45, 49, 53, 53, 57, 58, 59, 62, 63, 64, 65, 66, 67, 68, 69, 70, 71, 72, 73, 74, 75, 76, 77, 78, 79, 80, 81, 82, 83, 84, 85, 86, 87, 88, 89, 90, 91, 92, 93, 94, 95, 96, 97, 98, 99, 100, 101, 102, 103, 104, 105, 106, 107, 108, 109, 110, 111, 112, 113, 114, 115, 116, 117, 118.
W. H. Holcomb to John Taylor, Seymour Lake, ram Cate 31.
L. D. H. Burn to H Burns, Texas, ram J S Wood 203 and G L Hoyt 185; to B Miles and C Parsons, Saline, rams J S Wood 88, 90, 97 and N A Wood 125.
A W Bissell to R C Barus, St. Johns, rams A W Bissell 5; to Chas Behan, Palmo, Ram A W Bissell 112.
H. D. Ridout to B. Buck, North Adams, ewes G H Ridout 9, 31, 44, 46, 60, 131, 132.
J. W. Newbury to O V Hammont, Springfield, ram J W Newbury 14.
O. S. Nance to W. L. Wood, Saline, rams O C Sample 9, 11, 17.
S. R. Crittenden to Smith & Baumholder, ram S. R. Crittenden 11.
R. P. Morris to W. L. Wood, Saline, rams O C Sample 9, 11, 17.
C. E. Lockwood to E E D. Washington, Washington, ram C. E. Lockwood 11, 12, 13, 14, 15, 16, 17, 18, 19, 20, 21, 22, 23, 24, 25, 26, 27, 28, 29, 30, 31, 32, 33, 34, 35, 36, 37, 38, 39, 40, 41, 42, 43, 44, 45, 46, 47, 48, 49, 50, 51, 52, 53, 54, 55, 56, 57, 58, 59, 60, 61, 62, 63, 64, 65, 66, 67, 68, 69, 70, 71, 72, 73, 74, 75, 76, 77, 78, 79, 80, 81, 82, 83, 84, 85, 86, 87, 88, 89, 90, 91, 92, 93, 94, 95, 96, 97, 98, 99, 100, 101, 102, 103, 104, 105, 106, 107, 108, 109, 110, 111, 112, 113, 114, 115, 116, 117, 118.
W. C. Whetzel to R C Daniels, Lyons, ram C. Daniels 11, 12, 13, 14, 15, 16, 17, 18, 19, 20, 21, 22, 23, 24, 25, 26, 27, 28, 29, 30, 31, 32, 33, 34, 35, 36, 37, 38, 39, 40, 41, 42, 43, 44, 45, 46, 47, 48, 49, 50, 51, 52, 53, 54, 55, 56, 57, 58, 59, 60, 61, 62, 63, 64, 65, 66, 67, 68, 69, 70, 71, 72, 73, 74, 75, 76, 77, 78, 79, 80, 81, 82, 83, 84, 85, 86, 87, 88, 89, 90, 91, 92, 93, 94, 95, 96, 97, 98, 99, 100, 101, 102, 103, 104, 105, 106, 107, 108, 109, 110, 111, 112, 113, 114, 115, 116, 117, 118.
E. N. Ball, Secretary.

Veterinary Department

Suspicious Case, Probably Scrofula in Colt—Garget in the Cow.

ALBION, Oct. 9, 1889.

Veterinary Editor of the Michigan Farmer.

I have a valuable colt, three years old, that has what we have called a wort, on one side of his face, near his mouth, about where the bit would come. It keeps spreading and is now as large as a silver dollar. It has now festered and broken and discharges a bloody matter. It has done this twice before. About an inch from the upward is a small wort, and this projects and looks like a large crater. Last winter he had a breaking out, and would scratch and bite himself but seemed to get over it. He is in good pasture and good condition, and always has been. What can I do for it? Also please inform me what is good for garget in cows.

A SUBSCRIBER.

Answer.—The trouble with your colt is evidently due to some morbid condition of the blood, which has evidently assumed a constitutional character, requiring the personal examination of the animal by a veterinary surgeon in order to prescribe intelligently. If the animal is not properly attended the disease may terminate in fancy or glanders.

No. 2. Garget in the udder of the cow is due to inflammation of the lymphatic glands, usually occurring during the period of lactation. The best remedy known to us in such cases is to foment the udder with hot water for half an hour; wipe dry. Milk clean and apply a little vaseline to the udder with hand friction. Give internally Bovine Panacea. Ask your druggist for it. If he has not got it give sulphate magnesia, one pound; Jamaica ginger root, pulp, two ozs. Mix and divide into eight parts; give one powder dissolved in tepid water night and morning.

The offerings of sheep to-day were as follows: No. 1 white, 81%; No. 2 red, 81%; No. 3 red, 75%; rejected, red, 60%. Futures closed with No. 2 red for October \$1 1/4; November, \$1 2/4; December, \$1 3/4; and No. 3 at 73 1/2, and No. 4 at 61 1/2.

CORN.—Dull and lower. No. 2 held at 33 1/4, No. 3 at 33 1/2 per bu. In futures No. 2 sold at 32 1/2¢ for December delivery.

OATS.—Quoted at 23 1/4¢ per bu. for No. 2 white, 22 1/2¢ for No. 3 mixed, and 22 1/2¢ for light mixed.

BARLEY.—Choice samples are firm, while foreign markets are all higher. Closing quotations are weak. No. 2 held at \$1 20 per cwt. common, No. 3 at 90¢ and samples have sold down to 70¢.

CLOVER SRED.—Market dull and lower. Prime spot, \$3 50 per bu.; October, \$3 25; November, \$3 55; December, \$3 62 1/2¢; February, \$3 75 per bu. No. 2 spot sold at \$3 10 per bu.

SWITZER & ACKLEY sold J. Wreford 5 fair heifers av 866 lbs at \$2 75 and a mixed lot of 6 head of thin butchers' stock to Marx av 740 lbs at \$1 75.

Switzer & Ackley sold Stonehouse a mixed lot of 5 head of thin butchers' stock av 892 lbs at \$2 90.

Switzer & Ackley sold J. Wreford 5 fair heifers' stock av 866 lbs at \$2 75 and a mixed lot of 6 head of thin butchers' stock av 825 lbs at \$2 60.

Beardsley sold McGee a mixed lot of 6 head of thin butchers' stock av 850 lbs at \$2 60.

Switzer & Ackley sold McInerney a mixed lot of 6 head of thin butchers' stock av 860 lbs at \$2 60.

Knowe sold Barker 11 stockers av 770 lbs at \$2 50.

Switzer & Ackley sold Webb Bros 11 stockers av 770 lbs at \$2 50.

Switzer & Ackley sold Sullivan 18 stockers av 770 lbs at \$2 50 and a mixed lot of 6 head of coarse butchers' stock av 835 lbs at \$2 50.

Sprague sold Sullivan 7 stockers av 854 lbs at \$2 50.

Soefield sold Sullivan 9 stockers av 714 lbs at \$2 50 and a mixed lot of 6 head of coarse butchers' stock to Caplin av 760 lbs at \$2 50.

Holmes sold McGee a mixed lot of 6 head of thin butchers' stock av 830 lbs at \$2 50.

Switzer & Ackley sold Murphy a mixed lot of 6 head of thin butchers' stock av 773 lbs at \$2 50.

McHugh sold Sullivan 29 stockers av 748 lbs at \$2 50.

Switzer & Ackley sold Murphy a mixed lot of 6 head of coarse butchers' stock av 792 lbs at \$2 50.

Jeffards sold McGee a mixed lot of 17 head of coarse butchers' stock av 605 lbs at \$2 50.

Switzer & Ackley sold Murphy a mixed lot of 17 head of coarse butchers' stock av 605 lbs at \$2 50.

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